

publications as those of Dr. Hansen on the Annelids of the Norwegian North Sea Expedition so lax in diagnosis and so indifferent to the value of the minute structure of the bristles. It is no argument to say that the bristles vary in each foot, and that the anterior differ from the posterior. Their variation in these parts respectively follows regular and definite laws, which, however, are very difficult of explanation, though their condition is palpable enough to every minute observer. In comparing species, each series of bristles from the same foot must of course be contrasted, and with a little care an average one in each case can readily be selected, without laboriously examining the whole. Every well-marked species has a character of its own. In order to exemplify the laxity in such descriptions it is sufficient to quote Dr. Hansen's account of the feet in his *Polynoë foraminifera*, n. sp. "The pedal protuberances with two short lobes; the ventral cirrus not reaching to the summit of the protuberance. The bristles normal in form, the dorsal shorter than the ventral, which a little below the simple arcuate point are much more coarsely transverse-serrate than the former." Familiarity with the Polynoidæ is of little avail to the reader of these lines. Dr. Hansen's figures, however, are of value in a critical revision.

In the general structure of the group considerable advances have been made in connection with the segmental organs and ventral papillæ. The authors who first called attention to the subject were Grube and Claparède, while Huxley also associated the papilla with the reproductive functions. Recently Mr. W. A. Haswell,¹ B.Sc. Edin., carefully examined the structure of the parts in Australian Polynoidæ, and pointed out the true position of the segmental organs, which open externally by the ventral papillæ, through which he also saw spermatozoa issuing in one example, and he does not doubt that the ova issue by the same channel, and are directed by the currents of cilia to the cavities under the elytra where they undergo the earlier stages of development. He did not observe any apertures in the walls of the feet in the species examined. Mr. A. G. Bourne,² B.Sc. Lond., subsequently described the same parts, giving a minute account of their structure, illustrated by excellent figures. He is of opinion that the segmental organs open by a trumpet-like internal termination close to the ventral longitudinal muscles, and externally by the ventral papilla. Further, he thinks the generative products do not pass out by the latter aperture, but probably by spontaneous rupture of the body-wall. In connection with the external aperture, Grube³ pointed out the occurrence of the remarkable ventral lamellæ of *Gastrolepidia clavigera* on the site of the swelling at the base of the papilla.

The occurrence of the pseudobranchial process on the dorsum of the foot in *Achloë*

¹ *Proc. Linn. Soc. N. S. Wales*, vol. vii. pp. 262 *et seq.* Mr. Haswell was good enough to send me some very beautiful sections of these parts, and they bear out his descriptions.

² *Trans. Linn. Soc. Lond. (Zool.)*, ser. 2, vol. ii. pp. 352-354. Dr. Marenzeller, amongst others, had anticipated Mr. Bourne in regard to the identity of *Lepidonotus clava*, Mont., with *Polynoë grubiana*, Claparède.

³ *Annel. Fauna d. Philippinen*, p. 43.